

Identification of Commercial Parts

A plan for the identification of commercial-type parts in the CSM is required; the actual identification must await completion of the plan.

Single Point Failures

It was noted that some feeling exists that a current list of failures and failure effects has not been maintained for the Block II spacecraft.

Incomplete MCR List

The review indicated in some areas a failure to include MCR's known to be applicable to CSM 101; North American Rockwell will audit the MCR's to assure a complete ACDR.

Summary Vu-graph

In connection with the limited knowledge of spacecraft configuration, it was noted that MSC has implemented an effort to provide visibility into spacecraft configuration. It was also pointed out that certain RID's could contain surprises when the final response is in; i.e., the single point failure list, commercial parts identification, and the forward heat shield separation capability.



P. F. Sennewald

2031-PFS-sam

Attachments
Vu-graphs

CSM 101 ΔCDR

- HELD AT NAR OCTOBER 10-11-12
- SEVEN REVIEW TEAMS
- KLEINKNECHT CHAIRED REVIEW BOARD ON OCTOBER 12
- SCOPE LIMITED TO BLOCK II REDEFINITION MCR'S
 - ALL CHANGES SINCE FEBRUARY 1
 - ALL FUTURE 101 CHANGES WILL BE UNDER MSC CCB CONTROL
- SIMILAR TO PREVIOUS CDR'S EXCEPT FOR SCOPE
 - BLOCK II CDR'S HELD NOVEMBER 1965 AND MAY 1966

RID BREAKDOWN

PROPULSION	0	ELECTRICAL	2
CREW STATION	13	INSTRUMENTATION & COMMUNICATION	7
STRUCTURE	7	MATERIALS	5
ENVIRONMENTAL CONTROL	15		
		GENERAL	4
		TOTAL	53

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SOME IMPORTANT RID'S

CREW STATION

- BOOT/COUCH INTERFACE DEFINITION, FECAL CANISTER RETENTION

STRUCTURE

- FORWARD HEAT SHIELD SEPARATION SYSTEM ANALYSES
- EARTH LANDING SYSTEM DRAWINGS DO NOT INCLUDE ALL MODS

ENVIRONMENTAL CONTROL

- DIRECT O₂ FLOW CALIBRATION; TWO-PHASE O₂ FLOW (RAPID REPRESS)
- SURGE TANK RELIEF VALVE MATERIAL; O₂ PRESSURE REGULATOR QUAL

COMMUNICATIONS

- SINGLE POINT FAILURE DUE TO HIGH GAIN ANTENNA DELETION

IMPORTANT RID'S (CONTINUED)

MATERIALS

- NON-METALLIC MATERIALS CONTROL PLAN
- MAP OF REMAINING NOMEX CABLE TIES
- BETA BAGS ON CIRCUIT BREAKERS
- WAIVER ON DACRON RESTRAINT HARNESS

GENERAL

- PLAN FOR IDENTIFICATION OF COMMERCIAL PARTS IN SPACECRAFT
- LIST OF SINGLE POINT FAILURES AND FAILURE MODE EFFECTS ANALYSES
- INCOMPLETE MCR LIST FOR CSM 101 ΔCDR
- CONSISTENCY OF OCP'S WITH CSM 101 CHANGES

SUMMARY

- NAR WILL REPORT STATUS OF ALL RID'S ON OCTOBER 30 AND EVERY TWO WEEKS THEREAFTER
- NOT UNLIKE PREVIOUS DESIGN REVIEWS EXCEPT FOR LIMITED SCOPE
- KNOWLEDGE OF CONFIGURATION - AND SOFTWARE - STILL A LIMITING FACTOR
- SOME RID'S WITH DUE DATES MAY CONTAIN SURPRISES; E.G.
 - SINGLE POINT FAILURE LIST
 - COMMERCIAL PARTS IDENTIFICATION
 - HARDWARE AND SOFTWARE CONFIGURATION BASELINE IDENTIFICATION
 - MATERIALS TEST RESULTS AND CONFIGURATION DEFINITION
 - FORWARD HEAT SHIELD SEPARATION SYSTEM
 - EARTH LANDING SYSTEM MODS
- DUE TO ABOVE, REVIEW NOT ACTUALLY COMPLETE

BELLCOMM, INC.

Subject: CSM 101 ΔCDR Summary Report

From: P. F. Sennewald

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